

Application No. 09/911,673
Appeal Brief

Customer No. 01933

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**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT
APPEALS AND INTERFERENCES**

Applicant(s): Taro ENDO et al

Serial No. : 09/911,673

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For : DISPLAY SYSTEM AND
MICRODISPLAY APPARATUS

Art Unit : 2674

Examiner : Kevin M. NGUYEN

Appeal No. :

This paper is being submitted
via EFS-Web on February 23, 2007

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APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
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Applicant hereby appeals the Final Rejection of claims 6, 7,
9, 11, 13-21 and 26-28 of the above-identified application as set
forth in the Final Office Action dated October 4, 2006.

A Notice of Appeal was filed in the Patent Office with the
appropriate fee on January 3, 2007.

Accordingly, this Appeal Brief is being timely filed by the
due date of March 3, 2007.

The fee of \$500.00 for filing a brief in support of an appeal as set forth in 37 CFR 41.20(b)(2) is being paid by credit card herewith.

In addition, authorization is hereby given to charge any additional fees which may be determined to be required, or credit any overpayment, to Deposit Account No. 06-1378.

(i) REAL PARTY IN INTEREST

The real party in interest is OLYMPUS CORPORATION (the new name of the assignee of record, OLYMPUS OPTICAL CO., LTD.), a corporation of Japan, having a business address at 43-2, Hatagaya 2-chome, Shibuya-ku, Tokyo, JAPAN.

(ii) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

(iii) STATUS OF CLAIMS

This is an appeal from the Final Rejection of claims 6, 7, 9, 11, 13-21 and 26-28. The appealed claims are set forth in the attached Appendix.

Claims 1-5, 8, 10, 12 and 22-25 are canceled.

Claims 27 and 28 are not mentioned by the Examiner on the Office Action Summary Sheet or in item 1 on page 2 of the Final

Office Action dated October 4, 2006. However, claims 27 and 28 are rejected in item 12 on page 9 of the Office Action.

(iv) STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Final Office Action issued on October 4, 2006.

Thus, the appealed claims are claims 6, 7, 9, 11, 13-21 and 26-28 as set forth in the Amendment filed on August 25, 2006, in which claim 26 was amended.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a display system, and to a method of controlling a display system, wherein a display apparatus of the display system communicates with a host apparatus of the system to implement plug-and-play functions relating to on-screen display information.

According to the present invention as recited in independent claim 6, a display system is provided which comprises: a host apparatus (100A in Fig. 13, for example, DVD player 1003 in Fig. 12, see page 37, line 1 and page 37, line 18 to page 38, line 13) having an image output interface (for example, signal line 112A); a display apparatus (200A in Fig. 13, for example, displays 2001, 2002, 2003 in Fig. 12, see page 37, lines 1-5 and page 38, lines 14-21) which is operated by supply of at least one

of a video signal and power from the host apparatus (page 38, line 22 to page 39, line 9); and a communication interface for communicating data between the host apparatus and the display apparatus (for example, cable 300 in Fig. 13, see page 21, lines 20-23). As recited in claim 6, the display apparatus comprises: a storing section for storing power consumption data (EEPROM 203, see page 22, lines 16-17); a storing section for storing on-screen display information (EEPROM 203, see page 39, lines 10-14); and a display-side communication-section for transmitting the stored power consumption data and the on-screen display information (communication control circuit 201, see page 22, lines 17-19 and page 39, lines 10-14). And as recited in claim 6, the host apparatus comprises: a host-side communication section for receiving the power consumption data transmitted from the display apparatus and the on-screen display information (communication control circuit 101, see page 22, lines 20-22 and page 39, lines 15-18); a power control section for entirely performing power control of the display system based on the power consumption data received from the host-side communication section (power control circuit 108, see, for example, the flowchart of Fig. 4); and an information superimposing section for superimposing the received on-screen display information on the video signal (character generator 123 and character superimposer 124, see page 39, lines 18-21). As recited in

claim 6, the host-side communication section transmits the video signal having the on-screen display information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information (see graphics controller 105 which outputs the video signal via character superimposer 124 as disclosed at page 39, lines 1-3 and shown in Fig. 13; and see, for example, steps 903, 803, 804A, 807A, 906A in Fig. 14, and page 39, line 18 to page 40, line 15, relating to the transmission of on-screen display information from the display apparatus to the host apparatus, superimposing the on-screen display information at the host apparatus, transmitting the on-screen display information to the display apparatus, and displaying the video signal and on-screen display information at the display apparatus).

In addition, according to independent claim 7, a display system is provided which comprises: a host apparatus (100A in Fig. 13, for example, DVD player 1003 in Fig. 12, see page 37, line 1 and page 37, line 18 to page 38, line 13) having an image output interface (for example, signal line 112A); a display apparatus (200A in Fig. 13, for example, displays 2001, 2002, 2003 in Fig. 12, see page 37, lines 1-5 and page 38, lines 14-21) which is operated by receiving at least a video signal from the host apparatus (page 38, line 22 to page 39, line 9); and a

communication interface for communicating data between the host apparatus and the display apparatus (for example, cable 300 in Fig. 13, see page 21, lines 20-23). As recited in claim 7, the display apparatus comprises a memory for storing on-screen display information (EEPROM 203, see page 39, lines 10-14), and a display-side communication section for transmitting the on-screen display information (communication control circuit 201, see page 39, lines 10-14). And as recited in claim 7, the host apparatus comprises a host-side communication section for receiving the on-screen display information transmitted by the display apparatus (communication control circuit 101, see page 39, lines 15-18), and an information superimposing section for superimposing the received on-screen display information on the video signal (character generator 123 and character superimposer 124, see page 39, lines 18-21). As recited in claim 7, in the display system, the host-side communication section transmits the video signal having the on-screen display information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information (see graphics controller 105 which outputs the video signal via character superimposer 124 as disclosed at page 39, lines 1-3 and shown in Fig. 13; see, for example, steps 903, 803, 804A, 807A, 906A in Fig. 14, and page 39, line 18 to page 40, line 15,

relating to the transmission of on-screen display information from the display apparatus to the host apparatus, superimposing the on-screen display information at the host apparatus, transmitting the on-screen display information to the display apparatus, and displaying the video signal and on-screen display information at the display apparatus).

Still further, according to independent claim 26, a method is provided for controlling a display system including a host apparatus (e.g., 100A - see above) and a display apparatus (e.g., 200A - see above). The method according to claim 26 comprises: supplying at least a video signal from the host apparatus to the display apparatus to operate the display apparatus (page 38, line 22 to page 39, line 9); transmitting on-screen display information stored in the display apparatus from the display apparatus to the host apparatus (page 39, lines 10-14); superimposing, at the host apparatus, the on-screen display information received by the host apparatus onto the video signal that is supplied from the host apparatus to the display apparatus (page 39, lines 15-21); and displaying an image of the on-screen display information on the display apparatus based on the video signal having the on-screen display information superimposed thereon (page 39, lines 21-23; in addition see graphics controller 105 which outputs the video signal via character superimposer 124 as disclosed at page 39, lines 1-3 and shown in

Fig. 13; and see, for example, steps 903, 803, 804A, 807A, 906A in Fig. 14, and page 39, line 18 to page 40, line 15, relating to the transmission of on-screen display information from the display apparatus to the host apparatus, superimposing the on-screen display information at the host apparatus, transmitting the on-screen display information to the display apparatus, and displaying the video signal and on-screen display information at the display apparatus).

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review are whether claim 6 is obvious in view of the combination of USP 6,845,277 ("Michelet et al") and USP 6,295,002 ("Fukuda"), whether claim 14 is obvious in view of the combination of Michelet et al, Fukuda and USP 6,050,717 ("Kosugi et al")¹, whether claims 18, 20 and 16 are obvious in view of the combination of Michelet et al, Fukuda and USP 5,991,085 ("Rallison et al"), whether claims 7, 9, 11 and 26 are obvious in view of Michelet et al, whether claims 15, 27 and 28 are obvious in view of the combination of Michelet et al and Kosugi et al, and whether claims 13, 17, 19 and 21 are obvious in view of the combination of Michelet et al and Rallison et al.

¹ Kosugi et al, USP 6,050,717, has been incorrectly cited by the Examiner as USP 6,050,818.

(vii) ARGUMENT

Rejection under 35 USC 103 over Michelet et al and Fukuda

Re: Independent Claim 6

According to the present invention as recited in independent claim 6, the display apparatus of the display system comprises a storing section for storing on-screen display information, and a display-side communication-section for transmitting the on-screen display information, and the host apparatus of the display system comprises a host-side communication section for receiving the on-screen display information, and an information superimposing section for superimposing the received on-screen display information on the video signal. As recited in claim 6, the host-side communication section transmits the video signal having the on-screen display information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information.

As explained in the Amendment filed on August 25, 2006, it is respectfully submitted that Michelet et al, taken singly or in combination with Fukuda, clearly does not even remotely disclose, teach or suggest transmitting on-screen display information from the display apparatus to the host apparatus (with the on-screen display information being information that is to be displayed), and, at the host apparatus, superimposing the on-screen display

information on the video signal which is transmitted to the display apparatus, where the display apparatus displays an image of the on-screen display information.

With respect to claim 6, it is respectfully submitted that Michelet et al clearly does not disclose, teach, or suggest:

(1) a display apparatus comprising a display-side communication section for transmitting the on-screen display information stored at the display apparatus (and a corresponding host-side communication at the host apparatus which receives the on-screen display information), and (2) a host apparatus that comprises an information superimposing section for superimposing the received on-screen display information on the video signal, and a host-side communication section that transmits the video signal having the on-screen display information superimposed thereon, whereby the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information.

The Examiner acknowledges on page 3 of the Office Action that Michelet et al does not disclose transmitting on-screen display information from the display to the host, and the Examiner has cited Fukuda to supply the missing teachings of Michelet et al. As explained in more detail below, however, Fukuda also does not disclose, teach or suggest this feature of the present invention.

First, with respect to Michelet et al, it is respectfully submitted that Michelet et al discloses separately providing graphics signals (e.g., signals that could be interpreted as corresponding to video data) and on-screen display commands via separate communication pathways from the host to the display, and Michelet et al does not disclose, teach or suggest superimposing on-screen display information onto a video signal sent from the host to the display as recited in claim 6.

Michelet et al is related to a system, such as a personal computer, that includes a display (e.g., CRT display 21 or digital display 50), and a host including a motherboard 10. According to Michelet et al, the motherboard 10 not only includes a main processor 11, which is under the control of an operating system such as Windows, but also an electronic circuit 12 that operates independently and constitutes a "hardware monitoring circuit" that checks the configuration of the machine including the memory, BIOS and other information and feedback relating to essential features. According to Michelet et al, conventional hardware monitoring circuits are powered (via a power cord) even if the main machine is turned off, and such hardware monitoring circuits are capable of providing basic information (e.g., memory configuration, BIOS version) to the user via a display. Michelet et al is directed to providing additional display control capabilities to the hardware monitoring circuit via control of

the on-screen display capabilities of a display. However, according to Michelet et al, the on-screen display commands are provided from the host to the display (information to be displayed is not transmitted from the display to the host as recited in claim 6) and, in all of the embodiments of Michelet et al, the on-screen display commands are provided separately from the graphics signals sent from the graphics controller (no on-screen display information is superimposed on a video signal by the host, as recited in claim 6).

More specifically, as shown in Fig. 1 of Michelet et al, the "hardware monitoring circuit" is element 12 (shown in more detail in Fig. 2), and the main processor is element 11. Both the hardware monitoring circuit 12 and the main processor 11 of Michelet et al communicate with the display 21 via a graphics card 22. In more detail, as shown in Fig. 1 of Michelet et al, information may be transmitted from the hardware monitoring circuit 12 to the display 21 via a two-wire bus 18 (column 4, lines 10-13). Main processor 11 communicates with the graphics controller engine 13 via an AGP bus 23, and the graphics controller engine can communicate with the display 21 via the service bus 19 and graphics channel bus 20. According to Michelet et al, the display 21 has an on-screen display (OSD) function that can be controlled via the main processor 11. Such OSD control signals from the main processor 11 are sent via the

service bus 19, while graphics signals (e.g., R, G, B, signals indicating frames of images as disclosed at the top of column 5 of Michelet et al) are sent via bus 20. According to Michelet et al at column 5, lines 47-55:

The Display 21 provides the OSD function as an **independent feature** which is used for providing a second channel for displaying text and/or graphics on the display **independently of the graphics signals existing on graphics channel of bus 20** under control of processor 11.

Those **independent OSD capabilities of display 21 are controlled by means of OSD commands which are received on a serial link service channel on bus 19** which is issued from the graphics card 22. (emphasis added)

That is, Michelet et al explicitly discloses providing a separate channel of communication for on-screen display commands from the host to the display, so that the on-screen display commands are independent of the main graphics signals. In other words, the signal of Michelet et al that, at best, could be considered to correspond to the video signal recited in claim 6 is the graphics signal sent via the graphics channel/bus 20. The on-screen display commands from the processor 11 of Michelet et al are sent via the separate service channel/bus 19 to be independent of the graphics signals.

According to Michelet et al, moreover, on-screen display commands may be issued from the hardware monitoring circuit 12 in addition to the main processor 11 to display text information or

graphics generated by the microcontroller 31 of the hardware monitoring circuit 12. (See column 6, lines 38-41 of Michelet et al.) As explained hereinabove, the hardware monitoring circuit 12 of Michelet et al communicates with the display 21 via the bus 18. According to Michelet et al, this structure bypasses the graphics control engine 13 entirely. That is, instead of superimposing on-screen display information on a video signal as recited in claim 6, the structure of Michelet et al enables OSD commands to be issued from the hardware monitoring circuit 12 to the display 12 "independently of the processor 11 and the graphics controller 13" (column 6, lines 45-49) when "the graphics controller is not activated" (column 6, lines 54-55).

Thus, according to the embodiment shown in Figs. 1 and 2 of Michelet et al, on-screen display commands are transmitted from the processor 11 to the display 21 via a service bus 19 independently of the graphics signals supplied via bus 20, and on-screen display commands are transmitted from the hardware monitoring circuit 12 to the display 21 via the bus 18 completely independently of the graphics controller 13.

Clearly, therefore, the embodiment shown in Figs. 1 and 2 of Michelet et al does not even remotely suggest superimposing on-screen display information on a video signal sent from the host apparatus to the display apparatus, so that the display-side communication section receives the transmitted signal, and the

display apparatus displays an image of the on-screen display information, according to the present invention as recited in claim 6.

It is respectfully submitted, moreover, that the embodiments of Figs. 3-5 of Michelet et al are no more pertinent to claim 6 than Figs. 1 and 2 of Michelet et al discussed above.

More specifically, Fig. 3 of Michelet et al relates to providing the graphics system (which is on the graphics card 22 in Fig. 1) on the motherboard 10. Even with this structure, however, the embodiment of Fig. 3 of Michelet et al still includes a separate bus 18 corresponding to the hardware monitoring circuit 12, and a separate service channel 19 (via which on-screen display commands may be transmitted) corresponding to the processor 11, both of which are independent of the graphics channel 20 as explained above. (See column 8, lines 7-41 of Michelet et al.)

Fig. 4 of Michelet et al relates to a further consolidation of components with respect to Fig. 3. In Fig. 4 of Michelet et al, the arbitration mechanism 14 is embodied in the graphics engine 13. However, a separate service channel 19 is still provided independently of graphics channel 20 in Fig. 4 of Michelet et al. (See column 8, lines 42-56 of Michelet et al.)

Finally, Fig. 5 of Michelet et al relates to the application of the structure of Fig. 4 to a host controlling a digital

display. As can be clearly seen from the disclosure at column 8, line 56 to column 9, line 18 of Michelet et al, even the structure of Fig. 5 of Michelet et al separately provides image data and on-screen display commands to the display 60.

Indeed, Michelet et al discloses at column 8, line 56 to column 9, line 9 that data (bits data corresponding to red, green and blue), which could be interpreted as video data, is transmitted from the graphics card 50 via TMDS transmitter 51 through leads 62 to the display 60. On the other hand, on-screen display commands are sent from the processor or the independent hardware monitoring circuit of Michelet et al (see elements 11 and 12, not shown in Fig. 5) to the display 60 via two-wire bus 63. That is, even in Fig. 5, Michelet et al discloses separately transmitting graphics data and on-screen display commands from the host to the display (via leads 62 for graphics data and bus 63 for on-screen display commands).

Accordingly, it is respectfully submitted that Michelet et al clearly does not disclose, teach or even remotely suggest the features of the display system of the present invention as recited in independent claim 6 whereby the host apparatus of the display system comprises an information superimposing section for superimposing the received on-screen display information on the video signal, wherein the host-side communication section transmits the video signal having the on-screen display

information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information.

Indeed, element 54 of Michelet et al, which the Examiner contends corresponds to the information superimposing section of claim 6, is provided at the display in Michelet et al, not at the host as recited in claim 6. It is respectfully pointed out, moreover, that element 54 of Michelet et al is merely a "DDC/CI and OSD control decoder" that receives the signals sent by the two-wire bus 63. Michelet et al does not disclose any "superimposing" being performed at the DDC/CI and OSD control decoder 54. In addition, it is respectfully pointed out that the "superimposition" referred to at column 9, lines 10-18 of Michelet et al merely refers to displaying data on a digital display using column and row drive circuits 57 and 58 to control the pixels of the digital display.

Thus, it is respectfully submitted that elements 54, 57 and 58 of Michelet et al do not superimpose on-screen display information "on a video signal," but rather merely display information in accordance with on-screen display commands. And it is respectfully submitted that even if elements 54, 57 and 58 of Michelet et al could be considered to superimpose on-screen display information on a video signal, these elements of Michelet et al are provided at the display. Accordingly, these cited

elements of Michelet et al do not support the Examiner's assertion that Michelet et al discloses a host apparatus that comprises an information superimposing section for superimposing the received on-screen display information on the video signal, wherein the host-side communication section transmits the video signal having the on-screen display information superimposed thereon to the display apparatus as recited in claim 6.

It is respectfully submitted, moreover, that Michelet et al also clearly does not disclose, teach or suggest the features of the present invention as recited in independent claim 6 whereby the display apparatus of the display system comprises a storing section for storing on-screen display information, and a display-side communication-section for transmitting the on-screen display information, and the host apparatus of the display system comprises a host-side communication section for receiving the on-screen display information, wherein the received on-screen information is superimposed on the video signal. Indeed, as pointed out above, according to Michelet et al, the text or graphics of an on-screen display command sent from the circuit 12 are generated by the microprocessor 31, not received from the display as recited in claim 6. (See column 6, lines 38-41 of Michelet et al.)

The Examiner appears to acknowledge on page 3 of the Office Action that Michelet et al does not disclose transmitting on-

screen display information from the display to the host. For this reason, the Examiner has cited Fukuda to supply the missing teachings of Michelet et al. However, the Examiner also appears to refer to various "bi-directional" pathways of Michelet et al with respect to this feature of the present invention in the "Response to Arguments" section of the Final Office Action. In addition, despite the Examiner's acknowledgment with respect to claim 6 on page 3 of the Office Action, and on page 7 of the Office Action with respect to claim 7, the Examiner asserts that element 54 of Michelet et al is a display side communication section which transmits on-screen display information.

It is respectfully pointed out, however, that although bi-directional pathways are provided in Michelet et al, the on-screen display commands are disclosed only as being sent from the host to the display, along bus 18, bus 19 or bus 63 according to the various embodiments of Michelet et al. In addition, it is respectfully pointed out that element 54 of Michelet et al is a DDC/CI and OSD control decoder (as noted hereinabove) which decodes OSD control commands sent from the host and received by the display. Michelet et al does not contain any suggestion that DDC/CI and OSD control decoder transmits the on-screen display information to the host. In this connection, it is respectfully pointed out that the mere existence of a bi-directional communication pathway does not indicate that any one kind of

information is positively transmitted along the communication pathway, absent explicit disclosure of such data transmission in Michelet et al.

Still further, with respect to Fukuda, the Examiner has not pointed to any specific disclosure in Fukuda to support his assertion that on-screen display information is transmitted from a display to a host as recited in claim 6. And it is respectfully pointed out that Fukuda merely discloses issuing an instruction, from a main section to a controller section, to detect the remaining power in a battery, and transmitting a result of the detection from the controller section to the main section. See Fig. 3 of Fukuda, for example.

Accordingly, it is respectfully submitted that even if Fukuda were combinable with Michelet et al in the manner suggested by the Examiner, the resultant combination still would not achieve or render obvious the structure of the present invention as recited in claim 6 whereby the display apparatus comprises a display-side communication-section for transmitting the on-screen display information stored at the display apparatus, and whereby the host apparatus comprises a host-side communication section for receiving the on-screen display information, wherein the on-screen display information is information to be displayed by superimposing the on-screen display information on a video signal at the host apparatus, and

transmitting the video signal with the on-screen display information superimposed thereon to the display apparatus.

In view of the foregoing, it is respectfully submitted that Michelet et al and Fukuda, taken singly or in combination, do not disclose, teach or suggest the features of the present invention as recited in independent claim 6 whereby the display apparatus of the display system comprises a storing section for storing on-screen display information, and a display-side communication section for transmitting the on-screen display information, and the host apparatus of the display system comprises a host-side communication section for receiving the on-screen display information, and an information superimposing section for superimposing the received on-screen display information on the video signal, and whereby the host-side communication section transmits the video signal having the on-screen display information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information.

Rejection under 35 USC 103 over Michelet et al, Fukuda and Kosugi et al

Re: Claim 14

Claim 14 depends from claim 6, which patentably distinguishes over the combination of Michelet et al and Fukuda

as explained in detail hereinabove. It is respectfully submitted, moreover, that Kosugi et al also does not disclose, teach or suggest the features of the present invention as recited in independent claim 6.

Accordingly, it is respectfully submitted that claim 14 depending from claim 6 clearly patentably distinguishes over the combination of Michelet et al, Fukuda and Kosugi et al under 35 USC 103.

Rejection under 35 USC 103 over Michelet et al, Fukuda and Rallison et al

Re: Claims 16, 18 and 20

Claims 16, 18 and 20 depend from claim 6, which patentably distinguishes over the combination of Michelet et al and Fukuda as explained in detail hereinabove. It is respectfully submitted, moreover, that Rallison et al also does not disclose, teach or suggest the features of the present invention as recited in independent claim 6.

Accordingly, it is respectfully submitted that claims 16, 18 and 20 depending from claim 6 clearly patentably distinguish over the combination of Michelet et al, Fukuda and Rallison et al under 35 USC 103.

Rejection under 35 USC 103 over Michelet et al

Re: Independent Claim 7, and Dependent Claims 9 and 11

In a similar manner to independent claim 6, independent claim 7 recites a display system including a display apparatus that comprises a memory for storing on-screen display information, and a display-side communication section for transmitting the on-screen display information, and a host apparatus that comprises a host-side communication section for receiving the on-screen display information transmitted by said display apparatus, and an information superimposing section for superimposing the received on-screen display information on the video signal. According to claim 7, moreover, the host-side communication section transmits the video signal having the on-screen display information superimposed thereon, said display-side communication section receives the transmitted signal, and said display apparatus displays an image of said on-screen display information.

As explained hereinabove in detail with respect to claim 6, Michelet et al clearly does not disclose, teach or suggest a display comprising a display-side communication section for transmitting the on-screen display information (to a host-side communication section of the host), or a host comprising an information superimposing section for superimposing the received on-screen display information on the video signal, wherein the

video signal having the on-screen display information superimposed thereon is transmitted from the host apparatus to the display apparatus, so that the display apparatus displays an image of the on-screen display information.

Accordingly, it is respectfully submitted that independent claim 7, and claims 9 and 11 depending therefrom, clearly patentably distinguish over Michelet et al under 35 USC 103.

Re: Independent Claim 26

Independent method claim 26 recites subject matter along the lines of independent claim 7. The method according to claim 26 comprises: supplying at least a video signal from the host apparatus to the display apparatus to operate the display apparatus; transmitting on-screen display information stored in the display apparatus from the display apparatus to the host apparatus; superimposing, at the host apparatus, the on-screen display information received by the host apparatus onto the video signal that is supplied from the host apparatus to the display apparatus; and displaying an image of the on-screen display information on the display apparatus based on the video signal having the on-screen display information superimposed thereon.

As explained hereinabove with respect to claim 6, Michelet et al does not disclose structure for transmitting on-screen

display information from the display apparatus to the host apparatus, or a host which superimposes the on-screen display information onto a video signal transmitted from the host apparatus to the display apparatus.

Independent method claim 26 explicitly and positively recites steps of transmitting on-screen display information stored in the display apparatus from the display apparatus to the host apparatus and superimposing, at the host apparatus, the on-screen display information received by the host apparatus onto the video signal that is supplied from the host apparatus to the display apparatus. Accordingly, it is respectfully submitted that independent method claim 26 even more clearly patentably distinguishes over Michelet et al. That is, the "bi-directional" pathways and the DDC/CI and OSD control decoder of Michelet et al, which have been (incorrectly) relied upon by the Examiner as structure that transmits on-screen display information from the display apparatus to the host apparatus, clearly do not include a positive step of transmitting on-screen display information stored in the display apparatus from the display apparatus to the host apparatus and superimposing. And as explained hereinabove, Michelet et al also clearly fails to disclose superimposing on-screen display information on the video signal sent from the host to the display.

Accordingly, it is respectfully submitted that independent claim 26 clearly patentably distinguishes over Michelet et al under 35 USC 103.

Rejection under 35 USC 103 over Michelet et al and Kosugi et al

Re: Claims 15, 27 and 28

Claims 15, 27 and 28 depend from claim 7, which patentably distinguishes over Michelet et al as explained hereinabove. It is respectfully submitted, moreover, that Kosugi et al also does not disclose, teach or suggest the features of the present invention as recited in independent claim 7.

Accordingly, it is respectfully submitted that claims 15, 27 and 28 depending from claim 7 also clearly patentably distinguish over the combination of Michelet et al and Kosugi et al under 35 USC 103.

Rejection under 35 USC 103 over Michelet et al and Rallison et al

Re: Claims 13, 17, 19 and 21

Claims 13, 17, 19 and 21 depend from claim 7, which patentably distinguishes over Michelet et al as explained hereinabove. It is respectfully submitted, moreover, that Rallison et al also does not disclose, teach or suggest the features of the present invention as recited in independent claim 7.

Accordingly, it is respectfully submitted that claims 13, 17, 19 and 21 depending from claim 7 also clearly patentably distinguish over the combination of Michelet et al and Rallison et al under 35 USC 103.

* * * * *

In view of the foregoing, it is respectfully submitted that the present invention as recited in each of independent claims 6, 7 and 26, each of claims 14, 16, 18 and 20 depending from claim 6, and each of claims 9, 11, 13, 15, 17, 19, 21, 27 and 28 depending from claim 7, clearly patentably distinguishes over Michelet et al, taken singly or in any combination with Fukuda, Kosugi et al and Rallison et al under 35 USC 103.

Accordingly, it is respectfully requested that this Board reverse the rejection of appealed claims 6, 7, 9, 11, 13-21 and 26-28.

Respectfully submitted,

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Attachments: (1) Appendix ofAppealed Claims

(viii) INDEX OF APPEALED CLAIMS

6. A display system comprising:

a host apparatus having an image output interface;

a display apparatus which is operated by supply of at least one of a video signal and power from said host apparatus; and
5 a communication interface for communicating data between said host apparatus and said display apparatus;

wherein said display apparatus comprises:

a storing section for storing power consumption data;

a storing section for storing on-screen display

10 information; and

a display-side communication-section for transmitting said stored power consumption data and said on-screen display information;

wherein said host apparatus comprises:

15 a host-side communication section for receiving said power consumption data transmitted from said display apparatus and said on-screen display information;

a power control section for entirely performing power control of said display system based on said power consumption data received from said host-side communication section; and
20

an information superimposing section for superimposing said received on-screen display information on the video signal; and

wherein the host-side communication section transmits the
25 video signal having the on-screen display information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information.

7. A display system comprising:

a host apparatus having an image output interface;

a display apparatus which is operated by receiving at least a video signal from said host apparatus; and

5 a communication interface for communicating data between said host apparatus and said display apparatus,

wherein said display apparatus comprises a memory for storing on-screen display information, and a display-side communication section for transmitting the on-screen display
10 information,

wherein said host apparatus comprises a host-side communication section for receiving the on-screen display information transmitted by said display apparatus, and an information superimposing section for superimposing the received
15 on-screen display information on the video signal, and

wherein in said display system, said host-side communication section transmits the video signal having the on-screen display information superimposed thereon, said display-side communication section receives the transmitted signal, and said display apparatus displays an image of said on-screen display information.

20 9. A system according to Claim 7, wherein said communication interface has a specification for communication between said host-side communication section and said display-side communication section which conforms with a 5 DDC1/DDC2B/DDC2AB standard prescribed by Video Electronics Standards Association or an expansion function thereof.

11. A system according to Claim 7, wherein said display apparatus includes a mode for operating only said communication interface for communication with said host apparatus.

13. A system according to Claim 7, wherein said display apparatus further comprises an indicator lamp for alarm display.

14. A system according to Claim 6, wherein:
said host apparatus further comprises a first memory for storing on-screen display information thereof, and a second

memory for storing the on-screen display information of said
5 display apparatus which is received via said host-side
communication section, and

 said information superimposing section converts the on-
screen display information stored in at least one of said first
memory and said second memory into indicatable bit map
10 information, and superimposes the indicatable bit map information
on the video signal.

15. A system according to Claim 7, wherein:

 said host apparatus further comprises a first memory for
storing on-screen display information thereof, and a second
memory for storing the on-screen display information of said
5 display apparatus which is received via said host-side
communication section, and

 said information superimposing section converts the on-
screen display information stored in at least one of said first
memory and said second memory into indicatable bit map
10 information, and superimposes the indicatable bit map information
on the video signal.

16. A system according to Claim 6, wherein said on-screen
display information comprises ASCII text data.

17. A system according to Claim 7, wherein said on-screen display information comprises ASCII text data.

18. A system according to Claim 6, wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatuses.

19. A system according to Claim 7, wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatuses.

20. A system according to Claim 6, wherein said host apparatus is adapted to be selectively connected to a plurality of types of display apparatuses.

21. A system according to Claim 7, wherein said host apparatus is adapted to be selectively connected to a plurality of types of display apparatuses.

26. A method for controlling a display system including a host apparatus and a display apparatus, said method comprising:
supplying at least a video signal from the host apparatus to the display apparatus to operate the display apparatus;

5 transmitting on-screen display information stored in the display apparatus from the display apparatus to the host apparatus;

10 superimposing, at the host apparatus, the on-screen display information received by the host apparatus onto the video signal that is supplied from the host apparatus to the display apparatus; and

 displaying an image of the on-screen display information on the display apparatus based on the video signal having the on-screen display information superimposed thereon.

27. A system according to claim 7, wherein the display apparatus comprises a microdisplay apparatus that is wearable by a user.

28. A system according to claim 7, wherein the display apparatus comprises a microdisplay apparatus that is wearable on at least one of a head and face of a user.

(ix) EVIDENCE APPENDIX

Not applicable

Application No. 09/911,673
Appeal Brief

Customer No. 01933

(x) RELATED PROCEEDINGS APPENDIX

Not applicable